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August 5, 2014

Mr. Steven Way
On-Scene Coordinator
Emergency Response Program (8EPR-SA)
US EPA Region 8
1595 Wynkoop Street
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Delivered via e-mail

Subject: July 2014 Monthly Progress Report
Rico-Argentine Mine Site – Rico Tunnels
Operable Unit OU01, Rico, Colorado

Dear Mr. Way,

This progress report describes activities conducted during the month of July 2014 at the Rico-Argentine Mine Site (site) and activities anticipated to occur during the upcoming month. These activities are organized by task as identified in the Removal Action Work Plan. This progress report is being submitted in accordance with Paragraph 35.a of the Unilateral Administrative Order for Removal Action (the "UAO"), dated March 17, 2011.

ACTIVITIES FOR JULY

This section describes significant developments during the preceding period including actions performed and any problems encountered during this reporting period.

Site-Wide Activities

- Prepared a Health, Safety, Security, and Environment (HSSE) Program Plan to describe the general health and safety program that is implemented at the site.
- Prepared a Simultaneous Operations Plan (SIMOPS) to describe the concurrent work, hazards and mitigations to be implemented at the site, including the Town of Rico transport of lead impacted soils to the onsite Soil Lead Repository from installation of a new water pipeline.
- Conducted maintenance on the site access road.
- Improved vehicle access to the Soil Lead Repository to facilitate delivery of excavated soils accepted for disposal at the Repository from the Town's planned water pipeline installation project.

Task A – Pre-Design and Ongoing Site Monitoring

- Performed additional evaluation of potential improvements on surface water flow data gathering and telemetry. Continued work on the application for an antenna permit with the Town of Rico.
- Collected groundwater elevation measurements from 17 groundwater monitoring wells in the vicinity of upper ponds 11, 12, 14, 15, and 18 to monitor seasonal groundwater variations.

Task B – Management of Precipitation Solids in the Upper Settling Ponds

- The St. Louis Tunnel discharge was routed to Pond 15 during the month of July 2014.
- Completed and submitted the 2014 Pond 14 Solids Removal Work Plan to EPA on July 23, 2014.

- A Marine Assurance and Emergency Response Plan has been prepared for the Pond 14 solids removal work.
- Continued coordination with the qualified contractor to initiate the Pond 14 solids removal.
- Inspected the barge dredge to be used for the Pond 14 solids removal work at the vendors testing site. The equipment is new and performs well with an updated feature for reverse movement to limit plugging problems and repositioning delays.
- The St Louis pond system was observed during the month of July including free board and condition of spillways. The pond network appears to be flowing well and in good condition.

Task C – Design and Construction of a Solids Repository

- Colorado Department of Public Health and Environment (CDPHE) public comment period on the Solids Repository Engineering Design and Operations Plan is complete. CDPHE is preparing a letter with recommendation for issuance of a certificate of designation for the Solids Repository.
- Continued construction activities for the Solids Repository:
    - Mobilization and setup of equipment.
    - Demolition and processing of concrete within the footprint of the Solids Repository.
    - Erosion protection and clearing.
    - Excavation of precipitation solids within the Interim Drying Facility (IDF) from the area of the new access road and placement in the eastern side of the IDF.
    - Placement of fill for the new access road.
    - Construction of temporary access road to the excess material storage area.
    - Coordination with utilities for the relocation of the electrical and telephone lines through the Solids Repository.
- Continued work to acquire property interests at the Solids Repository location.
- Collected groundwater elevation measurements from nine (9) groundwater monitoring wells surrounding the Solids Repository in order to provide needed information to aid in construction.

Task D – Hydraulic Control Measures for the Collapsed Area of St. Louis Tunnel Adit

- Continued developing plans for the inclusion of a permanent collection system and pipeline to collect and convey water discharging from the St. Louis Tunnel debris plug to a point near a future water treatment system.

Task E – Source Water Investigations and Controls

- Continued Blaine Tunnel water depth and flow monitoring behind the Blaine Coffer Dam and Blaine Tunnel Flume.
- Continued developing responses to comments received from the EPA on June 12, 2014, regarding the *Evaluation of Source Water Controls Report*, which was submitted to EPA on December 31, 2013, in accordance with Subtask E3 of the Removal Action Work Plan.

Task F – Water Treatment System Analysis and Design

- Continued pilot-scale wetland treatability study activities.
    - Shut off flow through the pilot-scale wetland on July 18, 2014, and drained water from the rock drain and wetland cell.
    - Matrix materials from the rock drain and wetland cell were removed and will be used as inoculum for the wetland demonstration.
    - Performed matrix sampling in the wetland cell on July 23, 2014, in general accordance with the task-specific *Sampling and Analysis Plan*.
- Continued wetland demonstration treatability study activities.
    - Completed shaping and grading the Horizontal Subsurface Flow (HSSF) Wetland, Aeration Channel, Rock Drain, Settling Basin Number 2 (SB No. 2), and Biotreatment Cell.
    - Installed the Surface Flow (SF) Wetland bypass piping.

- Completed placing geotextile and geomembrane in Settling Basins 1 and 2, SF Wetland, HSSF Wetland, Aeration Channel, Rock Drain, and Biotreatment Cell.
- Continued plumbing between the St. Louis Tunnel discharge channel headgate and the Flow Diversion Box.
- Installed piping under the site access road between the HSSF Wetland and Aeration Channel and between the Biotreatment Cell and Aeration Cascade.
- A bypass pipe was installed from the SB No. 2 outlet, under the site access road, to Pond 18 in order to direct flow into Pond 18, bypassing the Biotreatment Cell and Aeration Cascade, during chemical feed system commissioning.
- Received limestone, topsoil, cobble rock, and high-density polyethylene ball deliveries to the site for placement in the basins.
- Removed Rock Drain, HSSF Wetland, and Biotreatment Cell inocula from the pilot-scale wetland rock drain and wetland cell.
- Matrix mixing for materials to be placed in the HSSF Wetland and Biotreatment Cell are underway at an off-site mixing location (Southwest Soils located near Montrose, Colorado).
- Installation of perforated piping is complete for the HSSF Wetland, Rock Drain, and Biotreatment Cell.
- Started placing substrate, with inoculum from the pilot-scale wetland, in the Rock Drain.
- Electrical work in the Former Lime Treatment Plant Building is underway in preparation for installing the chemical feed system.

ACTIVITIES FOR UPCOMING MONTH

This section describes developments expected to occur during the upcoming reporting period, including a schedule of work to be performed, anticipated problems, and planned resolution of past or anticipated problems.

Site-Wide Activities

- Complete vehicle access improvements for the Soil Lead Repository to facilitate delivery of excavated soils accepted for disposal at the Repository from the Town's planned water pipeline installation project.

Task A – Pre-Design and Ongoing Site Monitoring

- Inspect the St. Louis Ponds System, water levels, and free-board.
- Collect groundwater elevation measurements from 17 groundwater monitoring wells in the vicinity of upper ponds 11, 12, 14, 15, and 18 to monitor seasonal groundwater variations.
- Continue work on submittal and processing of the application for a telemetry antenna permit for the Rico office building.

Task B – Management of Precipitation Solids in the Upper Settling Ponds

- Begin Pond 14 Solids Removal, including the following:
  - Mobilize solids removal contractor and equipment to Rico site.
  - Mobilize floating dredge and dredging equipment.
  - Perform task specific training and overall site refresher training for solids removal contractor.
  - Complete work to water management system, including Pond 15 discharge pipe improvements, per 2014 Solids Removal Work Plan.
  - Remove debris and solids material from eastern edge of Pond 14 and deposit solids into Pond 13 interim storage.
  - Prepare Pond 14 work site for placement of all dredging equipment. Complete setup of dredging cable systems, pipeworks, and electrical systems. Launch dredge and continue Pond 14 solids removal.

  - Placement of dredged solids into Pond 13.
- Continue routing St. Louis Tunnel discharge to Pond 15.
- Route St. Louis Tunnel discharge to Pond 18 for Pond 15 discharge pipe improvements.

Task C – Design and Construction of a Solids Repository

- Continue work to secure the Dolores County Land Development Agreement and accompanying certificate of designation for the solids repository.
- Continue efforts to acquire property interests at the Solids Repository location.
- Continue construction of the Solids Repository including construction of access road realignment and relocated underground utility corridor, excavation and fill for the Solids Repository cell and run-on control channel, and completion of the temporary haul road to the excess material storage area.

Task D – Hydraulic Control Measures for the Collapsed Area of St. Louis Tunnel Adit

- Continue detailed design analyses for the St. Louis Tunnel hydraulic control system.

Task E – Source Water Investigations and Controls

- Continue Blaine Tunnel water depth and flow monitoring behind the Blaine Coffer Dam and Blaine Tunnel Flume.
- Continue developing responses to EPA's comments on the *Evaluation of Source Water Controls Report*.

Task F – Water Treatment System Analysis and Design

- Plan and coordinate decommissioning of the pilot-scale wetland for late August or early September.
- Complete construction of the wetland demonstration system, including piping installation, matrix material mixing and placement, floating baffle installation, and chemical feed system installation.
- Commission the wetland demonstration and perform monitoring activities, in accordance with the Performance Monitoring Plan (Appendix B of the *St. Louis Tunnel Discharge Constructed Wetland Demonstration Treatability Study Work Plan*).
- Startup of the Wetlands Demonstration System is anticipated for mid August 2014.
- Continue scoping additional data needs as necessary related to treatment system alternatives.

If you have any questions, please feel free to contact me at (951) 265-4277.

Sincerely,

Anthony R. Brown
Project Manager
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